1889/90

The Maryland Agricultural College,

1889-1890.

CATALOGUE

OF THE

Maryland Agricultural College

1890.

THIRTY-FIRST YEAR.

BALTIMORE:
From the Press of The Daily Record.
1890.

CALENDAR FOR 1890-91.

September 23—Tuesday—Examinations for admission.

September 24—Wednesday—Fall Term begins, 9 A. M.

Thirteen Weeks.

December 23—Tuesday—Fall Term ends at 3 P. M.

January 6—Tuesday—Winter Term begins, 9 A. M.

Eleven Weeks.

March 25—Winter Term ends at noon.

(Easter, March 29th.)

March 31—Tuesday—Spring Term begins, 9 A. M.

Twelve Weeks.

June 24—Wednesday—Graduation Day.

Spring Term ends at sunset.

June 25—Thursday—Examination for admission to the College, the following Autumn.

BOARD OF TRUSTEES.

Members Ex-Officio under State Law.

His Excellency E. E. JACKSON, *Governor*,
PRESIDENT OF THE BOARD.

Hon. WM. PINKNEY WHYTE, *Attorney General.*

Hon. L. VICTOR BAUGHMAN, *Comptroller of the Treasury.*

Hon. ROBERT F. BRATTAN, *President of the Senate.*

Hon. JOHN HUBNER, *Speaker of the House of Delegates.*

Hon. EDWIN H. BROWN, *State Treasurer.*

Members Elected by the Stockholders.

Hon. J. CARROLL WALSH, Jerusalem Mills, Harford Co.

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CHAS. B. CALVERT, Esq., Agricultural College, P. G. Co.

ROBERT A. DOBBIN, Esq., St. Denis, Baltimore Co.

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Members by Executive Appointment.

	Term Expires.
GEORGE R. WILLIS, Esq., 213 Courtland St., Baltimore.	1892
Dr. CHAS. A. WELLS, Hyattsville, Prince George's Co.	1892
Col. F. CARROLL GOLDSBOROUGH, Easton, Talbot Co.	1894
DAVID SEIBERT, Esq., Clear Spring, Washington Co.	1894
JEREMIAH P. SILVER, Esq., Glenville, Harford Co.	1896
WILLIAM T. BIEDLER, Esq., Baltimore.	1896

FACULTY.

HENRY E. ALVORD, C. E.
President and Lecturer on Agriculture and History.

THOMAS N. CONRAD, A. M., M. Sc.,
Professsor of the Principles and Practice of Agriculture.

DICE McLAREN, M. Sc., B. D.
Professor of Natural History.

JOHN D. HIRD, A. M.
Professor of Chemistry.

RICHARD H. ALVEY. Jr., A. B.,
Professor of Language and Literature.

W. H. ZIMMERMAN, A. M.
Professor of Physics and Acting Professor of German and French.

ALBERT B. SCOTT, Lieut. 13th Infantry, U. S. Army,
Professor of Military Science and Tactics and Acting Professor of Mathematics and Drawing.

*W. HORACE SOPER, *Registrar.*

Prof. ALVEY, *Librarian.*

*Died October 25th, 1889.

LECTURERS.

F. L. KILBORNE, B. V. S.

U. S. Bureau of Animal Industry.

Lecturer on Comparative Anatomy of Domestic Animals and Veterinary Science and Practice.

M, G. ELLZEY, M. D.,

Proprietor of Earnscliffe Stock Farm, Woodstock, Md.; formerly Professor of Agriculture, Virginia Agricultural College.

Lecturer upon the Principles of Breeding Domestic Animals.

C. HART MERRIAM, M. D.,

Chief of Division of Ornithology, U. S. Department of Agriculture.

Lecturer on the Birds and Mammals of America in their Relations to Agriculture.

GEORGE P. MERRILL, M. S.,

Curator Dept. of Lithology and Physical Geography, U. S. National Museum.

Lecturer on the Practical Aspects of Physical Geography and Geology.

OFFICERS OF THE

Maryland Agricultural Experimental Station

CONNECTED WITH THE COLLEGE.

HENRY E. ALVORD, C. E.,
Director.

HARRY J. PATTERSON,
Chemist.

WILLIAM H. BISHOP,
Horticulturist.

ALBERT I. HAYWARD,
Agriculturist.

ERNEST H. BRINKLEY,
Machinist.

DAVID B. PERRY,
Stenographer.

CATALOGUE OF STUDENTS

FOR THE

Session of 1889-90.

AMMEN, ULYSSES GRANT,	Ammendale, Prince George's Co.
AMMEN, FRANCIS DUPONT,	Ammendale, Prince George's Co.
ANNAN, DANIEL, JR.,	Cumberland, Allegany Co.
BESLEY, FRED WILSON,	Ash Grove, Fairfax Co., Va.
BRANCH, CHARLES,	Ellicott City, Howard Co.
BROOKS, JOHN DOSHER,	Brookland, D. C.
CALVERT, GEORGE HENRY, JR.,	Agricultaral College, Prince George's Co.
CALVERT, RICHARD CREAGH M.,	Agricultural College, Prince George's Co.
CHEW, FRANK,	Baltimore.
CHILDS, NATHAN,	Highland, Howard Co.
CONLEY, CHARLES HENRY,	Fairland, Montgomery Co.
DACHENHAUSEN, ALEXANDER VON,	Washington, D. C.
FISHER, JOHN GORDON,	Sykesville.
FOSS, ALLISON ARCHER	Washington, D. C.
FOSTER, EDWIN HUNTER,	Washington, D. C.
GALLOWAY, HOWARD BURGESS,	Baltimore.
GAMBRILL, STEPHEN WARFIELD,	Laurel, Prince George's Co.
GAMBRILL, WILLIAM GORMAN,	Laurel, Prince George's Co.
GEORGE, JAMES BERNARD,	Freedom, Carroll Co.
GOLDSBOROUGH, MATTHEW T., JR.,	Easton, Talbot Co.
GRAFF, GUSTAVUS ZEWELL,	Derwood, Montgomery Co.

HEDGES, SAMUEL EDWARD,	Cumberland, Allegany Co.
HOBLITZELL, FRAZK WEIDERMAN,	Myersdale, Penn.
JACKSON, THOMAS LAMAR,	Burnt Mills, Montgomery Co.
JANNEY, JOSEPH ELLIOTT,	Brighton, Montgomery Co.
JOHNSON, EDWARD DARLINGTON,	Agricultural College, Prince George's Co.
KEECH, WILLIAM SCOTT, JR.,	Towson, Baltimore Co.
LANGLEY, JAMES CLARENCE,	Scotland, St. Mary's Co.
LATIMER, JAMES BRAWNER,	Port Republic, Calvert Co.
LATIMER, THOMAS EDWIN,	Baltimore.
MANNING, CHARLES CHENEY,	Hagerstown, Washington Co.
McDONALD, THOMAS BENTON,	Potomac, Montgomery Co.
NILES, EDWARD GRANT,	Washington, D. C.
PENN, SU,	Seoul, Corea.
RAY, JAMES ENOS, JR.,	Washington, D. C.
RIND, ROBERT GRIERSON,	Baltimore.
RUSSELL, ROBERT LEE,	Washington, D. C.
SEIBERT, WALTER STEWART,	Clear Spring, Washington Co.
SEMMES, RICHARD MIDDLETON,	Cumberland, Allegany Co.
SHERMAN, HENRY CLAPP,	Ash Grove, Fairfax Co., Va.
SMITH, FREDERICK JOHN,	Washington, D. C.
SOLES, CLARENCE ELDER,	McKeesport, Penn.
TOWERS, LAWRENCE BARTON,	Denton, Caroline Co.
VEITCH, FLETCHER PEARRE,	Laytonsville, Montgomery Co.
WILSON, ROBERT GORDON,	Denton, Caroline Co.

GRADUATES OF 1890.

RICHARD C. M. CALVERT, B. S.
WILLIAM SCOTT KEECH, JR., B. S.
CHARLES CHENEY MANNING, B. S.
EDWARD GRANT NILES, B. S.
ROBERT LEE RUSSELL, B. S.
CLARENCE ELDER SOLES, B. S.

GRADUATES OF 1889.

THOMAS D. GRIFFITH, B. S.
ROBERT M. PINDELL, JR., B. S.
NEHEMIAH R. SAULSBURY, B. S.
FRANK WITMER, B. S.

GRADUATES OF 1888.

SAMUEL M. CHAMBLISS, A. B.
MELVIN C. HAZEN, B. S.
LEONARD B. JOHNSON, A. B.
WILLIAM A. SIGLER, B. S.
ROBERT E. SMITH, B. S.
ALBERT C. TOLSON, A. B.
JULIUS B. WEEMS, B. S.

HISTORY.

THE MARYLAND AGRICULTURAL COLLEGE

Was the second of its kind, still in existence, in America, to open its doors to students, and the first and only one established by the voluntary contributions of public-spirited citizens. The charter, "to establish and endow an agricultural college in the State of Maryland * * * in which the youthful student may especially be instructed in those arts and sciences indispensable to successful agricultural pursuits," was granted in March, 1856, being more than six years before the first Federal legislation for a similar purpose.

As a foundation, about five hundred liberal residents of Maryland, most of them directly interested in the agricultural property and progress of the State, together with a few non-residents, subscribed the amount necessary to purchase the farm and erect the first buildings. Subsequently the State made special appropriations to the College, which are still continued, and this institution receives the benefits of the Congressional land grant to Maryland, under the act of July 2d, 1862; also the appropriations under the act of Congress of March 2d, 1887.

LOCATION.

THE COLLEGE is located three-fourths of a mile from College Station, Prince George's Co., Md., on the Washington Branch of the Baltimore and Ohio Railroad. Numerous trains daily afford easy communication with all points. College Hill, on which stand the principal college buildings, is a beautiful eminence, overlooking wide stretches of country. The surrounding farm em-

braces two hundred and eighty-six acres, forty of which are woodland, and a large part of the remainder is under cultivation. The conformation of the farm and diversity of its soil offer excellent opportunities for varied agricultural operations, and this, together with the beauty and healthfulness of the site, admirably adapts the location to the purposes of an educational institution of this character. The city of Washington is only eight miles distant; this proximity to the National Capital gives the College exceptional advantages in the valuable aid which it derives from the libraries and scientific collections of the different Departments of the Government.

POST-OFFICE.

THE post-office address is Agricultural College, Prince George's Co., Md. Telegrams and express matter should be sent to College Station (B. and O. R. R.)

BUILDINGS.

THE main building, standing in the midst of a fine grove of forest trees, is a massive brick structure of six stories, one hundred and twenty feet long and fifty-four feet wide. It possesses accommodations for one hundred and fifty students, apartments for professors, class-rooms, chapel, museum, library, reading-room, armory, parlors, dining-room, and the necessary offices. The dormitories are spacious, well ventilated, and heated by steam. Well-water, forced to tanks in the attic, is supplied to the several floors by a system of pipes. Careful provision is made for the maintenance of the proper sanitary condition of the building.

The Chemical Laboratory, a separate brick structure close to the main building, has been recently thoroughly refitted. It is furnished with water, steam and gas, and with all the apparatus of a well appointed laboratory.

The Gymnasium, another detached building, erected for the purpose, affords opportunity for healthful exercise and muscular development.

The President's residence occupies a fine site a few hundred yards from the college.

The Agricultural Experiment station has its offices and working quarters in the substantial brick structures, formerly known as "Rossburgh," now completely renovated, and situated about a hundred rods from the college buildings, in the midst of the fields especially assigned to experiment purposes.

DEPARTMENTS OF STUDY.

THE Act of Congress creating the endowment of State Agricultural Colleges was passed July 2d, 1862, and is entitled "An act granting public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts." The aims of a college thus originated are defined as follows:

"Its leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the Legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

In accordance with this "act" and corresponding legislation of the State of Maryland, the trustees of this College recognize their obligation to provide here, first of all, for thorough instruction in "those branches of learning which are related to agriculture and the mechanic arts." They have not yet been able fully to realize their hopes and purposes, but they are assured that the plans they have now devised will effect a steady advance in this direction. The members of the Faculty are men chosen with special reference to their fitness for duties in an institution of the character above indicated. The course of study has been changed in certain important particulars to adapt it more perfectly to the "leading object" of the College, and so far as means are available all appliances which are correspondingly called for, will be provided. It is not intended that the time of the students shall be occupied with the ordinary labors of the farm and workshop, but that, accompanied by their instructors, they shall spend certain fixed portions of the day, at suitable seasons, in the fields or stables, observing and performing such operations as may illustrate the teachings of the class room in the department of agriculture and instruct in their proper execution.

But while these branches of learning will be thus strongly emphasized, "other scientific and classical studies" will be included in the course as heretofore, so that a "liberal" as well as a "practical education" may be within the reach of the "industrial classes" to fit them for "the several pursuits and professions in life." Instruction in military tactics will be given also, as by law required.

Experience has proved that the course of instruction offered at this and kindred institutions, forms an exceptionally good preparation for those desiring to pursue later professional studies for law or medicine, often saving a full year of time at the expensive professional schools. And the range of study here is so broad, truly liberal and thoroughly practical, that the graduate is well fitted for general business.

AGRICULTURE.

Agricultural property in the older States has depreciated in value in recent years, and it is generally admitted that the successful and profitable pursuit of farming is more difficult than in former times. The changed condition of affairs is recognized by every one. Active and increasing competition, lower prices for products and higher rates for labor compel greater economy on the farm and a closer study of the markets. A greater diversity in crops and stock is found advisable as a rule. The owner, renter or manager of agricultural land needs to apply less physical strength, but more brain work, than in years past. In short, it is now almost universally recognized that the business of farming and gardening requires a special preparation and training, or in other words, a *special education* for its successful pursuit, just as is found necessary for other gainful occupations.

The Maryland Agricultural College aims to supply this particular line of education. It does not expect one of its students or graduates to perform the manual labor of the farm any better than if he had never attended college. But it does enable him to understand better the reasons for such labor, and the right time and method of its application,—to judge of skilled and unskilled labor and manage it economically and wisely,—to understand the principles

of the construction and use of labor-saving appliances so as to select and operate them with judgment,—to know the natural laws and their modifications, which should govern the cultivation of the soil, the production of crops and rearing of domestic animals,—and the many ways in which modern science can be brought to the aid of agriculture, by preserving the natural fertility of the earth, restoring the productiveness of worn lands, and by improved methods enlarging the returns, while lessening the area and cost of production.

This class of instruction is not only becoming a necessity to those who must obtain a livelihood by farming, but it is equally useful and profitable to the retired merchant or professional man, the inheritor of large estates which have been impoverished by long continued cropping, and the lover of nature and country life, whatever may be his special occupation. It is a training in the observation of natural objects and practical affairs which proves useful in all the walks of life, although especially adapted to those who have the ownership, use or management of agricultural land and country property.

In the effort to realize these aims and purposes, the laboratory, museum, library, stable and fields are used to supplement work in the class and lecture room. Practical illustration or object lessons go hand in hand with theory and the teachings of science. The Agricultural Experiment Station, provided for this State by the Act of Congress approved March 2d, 1887, has been established upon the college farm, and although a distinct branch of the institution, it adds greatly to the facilities for agricultural instruction. Finely equipped, with a corps of scientific workers, the operations of the station, in original investigations and practical tests and experiments, prove interesting and instructive alike to the students of the college and to all engaged in the progress of agricultural and horticultural affairs.

In short, the Maryland Agricultural College will be conducted in accordance with its name and original object, as described in its comprehensive charter, and the subsequent legislation, both State and National, which so clearly defines its special purpose.

NATURAL HISTORY.

The various branches of study which are embraced in this general title are of the first importance to one who is constantly subjected to the laws of nature in the operations of farm and garden. Among these branches are climatology, geology, mineralogy, botany, zoology, and comparative anatomy, and entomology. It is the purpose to teach these according to the latest researches of modern science and by the most approved and practical methods. A knowledge of these subjects is equally essential to the physician and of great value to the lawyer and the business man.

The unsurpassed collections in Washington, at the Smithsonian Institution, the National Museum, and the Department of Agriculture, all easily accessible, are of the highest value in connection with the instruction in this department.

CHEMISTRY.

THE CHEMICAL DEPARTMENT has been thoroughly reorganized and equipped as never before in its history. Its new quarters afford excellent facilities for practical work. Each student is provided with a laboratory bench, together with all needful apparatus and re-agents, for the condition of which he is held responsible.

Inorganic Chemistry.—The facts and principles of general chemistry must be mainly acquired in the study of non-metallic elements; hence special attention is paid to this introductory work before proceeding with the no less important study of the metals and their application in art and industry. Daily experiments illustrate the subjects under discussion.

Analysis.—Qualitative analysis of both simple and mixed substances is taken up during the Sophomore year, and blow-pipe analysis with dermination of minerals and ores at the beginning of the Junior year. Qualitive analysis, both gravimetric and volumetric, is also included in the Junior year. Agricultural chemical analysis is made an important feature of the course, and

comprises the analysis of commercial fertilizers, fodders, feed-stuffs, water, milk; also the detection of adulteration in farm and manufactured products, and the examination of soils.

Organic Chemistry.—A few series are studied exhaustively, a general survey of the field following, special attention being paid to compounds of interest on the farm. The laboratory work of the Senior year consists of the practical application of chemistry to agriculture.

MATHEMATICS.

The study of mathematics is pursued only so far as the distinctive aims of this institution require, the course conforming in general to that adopted in the most approved Agricultural Colleges. The Freshman year begins with a review of Arithmetic, special attention being given to its application to the daily affairs of life. This is accompanied by a brief course in single entry book-keeping. Algebra is then taken up and completed by the middle of the Sophomore year. Geometry, Mensuration, Trigonometry and Surveying follow in the Sophomore and Junior years. The field work in surveying will afford much practice in the use of chain and compass, transit and theodolite, surveying and leveling. This practice is continued in the Senior year with application in running old farm lines, mapping farms, dividing lands, highway surveying and road-making, with cuts and fills, draining and water works. During this year, also, the elements of Civil Engineering are taught with a consideration of the strength of materials and the general principles of building and construction.

Drawing is, for the present, assigned to this department, and extends through three years, being taught in its practical aspects, rather than as an artistic accomplishment.

PHYSICS AND MECHANICS.

The course of Instruction in Physics and Mechanics aims to make clearly understood the principles of the different mechanical powers and the physical forces of nature and their industrial applications.

The method of instruction is by means of recitations and lectures accompanied by experimental demonstrations.

The students of the senior class are required to take notes of the lectures and experiments and illustrate them by suitable drawings. These notes are examined at intervals and marked according to their value.

The course embraces the general properties of matter; laws of falling bodies: hydrostatics, hydro-dynamics, and pneumatics; also the principles of sound, light, heat, electricity, magnetism and electro-magnetism.

Great care is taken throughout the course to array the various branches of science in natural groupings, in order to emphasize their intimate relations.

ENGLISH LANGUAGE AND LITERATURE.

An Accurate and refined use of the mother tongue is the chief aim of the course in the department of English. In the earlier stages there is a persistent drill in analysis of sentences, in word-building and derivation, and in the elements of style, with constant practice in expression, oral and written. The history of the language is then taken up, with respect to its vocabulary, grammar and different periods. This is followed by the historical and critical study of English literature. Throughout the course the text-books used are supplemented by conversational lectures and parallel reading.

To this department have been assigned the related subjects of Logic, Mental Science, Constitutional History and Political Economy—most of these in the Senior year. Also the periodical exercises in composition, debates and elocution.

LATIN.

The study of Latin will be offered in a continuous course of four years and optional with the student, being accepted as a substitute for French or German, or some of the scientific branches of Junior and Senior years. If Latin is elected at the beginning of Freshman year, it must be pursued the whole year, and must also be taken a second year, unless a substitute be arranged satisfactory to the Faculty. Only those will be admitted to the advanced Latin classes who are qualified to hold a good position in them.

FRENCH AND GERMAN.

Two years of instruction will be offered in each of these modern languages, and if either is taken it must be pursued that length of time. These languages will be optional and accepted in place of Latin or some other studies of the course, to be designated. The ability to read the language will be sought as the end of main importance, but the course will be such as to include attention to pronunciation and ordinary conversation.

MILITARY.

THE ACT OF CONGRESS which contributed the greater part of the endowment of the College, was accepted by the State under conditions which make instruction in military tactics imperative. The students are, therefore, organized as a corps of cadets under the commandant, who is an officer of the Regular Army, detailed for this duty by the War Department, and is, for the time, a member of the faculty. They are uniformed, and every one, unless physically debarred, is required to attend such exercises as are prescribed and is subjected to military discipline to a certain degree.

These exercises are believed to be decidedly beneficial, and the tactical instruction is thoroughly given. The drills, which occupy three or four hours a week, furnish excellent physical culture, insuring regular and healthful exercise at all seasons, and out of doors whenever possible. Neatness in dress, graceful carriage of the body and dignified bearing, are secured by the drill, and habits are acquired of prompt obedience and self-control and the power to command.

The excellence of the instruction in this department was shown in May, 1886, when, at the National Drill at Washington, the Corps of Maryland Agricultural Cadets received the second cadet prize in the competitive drill.

The members of the upper classes who show attention to duty and proficiency in drill are detailed in rotation to perform the duties of commissioned and non-commissioned officers of the company and battalion.

Every student is required to provide himself with the full uniform adopted for this department, before the close of the term in which he enters the college, and thereafter to keep the same in order and wear it upon all drills and stated military exercises. The uniform is a neat suit of cadet gray, suitable for all occasions, and, at the reasonable prices which the institution is able to obtain, by contract, it forms an extremely economical dress. No article of uniform dress will be permitted to be worn, unless obtained under the supervision of the college officers, and from the authorized contractor for the time being.

The military system is also applied to the discipline of the students while in and about the buildings, and where deemed necessary this discipline may be extended to apply to individuals or the entire body of students, at all times and places. The dormitories, as well as the arms, equipments and clothing of the cadets, are regularly inspected, and neatness and order are enforced.

While this department is administered to honestly meet the requirements of law and to benefit the individual and the College, it is not permitted to interfere with other educational interests and duties, or encroach upon reasonable periods of recreation.

COURSE OF STUDY.

FRESHMAN YEAR.

Agriculture.—History, breeding and care of farm stock; Dairying.

Natural History.—Climatology and Physical Geography.

History.—Ancient and Modern.

English.—Analysis and construction of language.

French. } Begun and continued through the year.
Latin. } One of these is required, but not both.

Mathematics.—Arithmetic reviewed; Algebra.

Book-keeping.—Single Entry, with practice in business forms and farm accounts.

SOPHOMORE YEAR.

Agriculture.—Anatomy and Physiology of Plants and Animals.

Natural History.—Botany and Mineralogy.

Chemistry.—Begun and continued throughout the year.

English.—History of language; Expression and Style.

French. } Second year of both.
Latin. } One of these is required.

Mathematics.—Algebra completed; Geometry.

Drawing.—Free-hand and Geometrical.

JUNIOR YEAR.

Agriculture.—Soils and Plant Growth; Horticulture.

Natural History.—Geology, Zoology and Entomology.

Chemistry.—Laboratory practice and Organic Chemistry.

Physics.—Mechanics and Physics through the year.

English.—English Literature, Logic and Rhetoric.

Latin.—Third year. } Optional studies; both may be taken on
German.—First year. } certain conditions.

Mathematics.—Trigonometry, Mensuration and Surveying.

Drawing.—Mechanical and Topographical.

SENIOR YEAR.

Agriculture.—Manures and Fertilizers; Crops, general and special; Forage and Feeding; Farm Mechanics; Lectures and Field Notes.

Chemistry.—Laboratory Practice; Organic Analyses.

Physics.—Lectures, with notes and examinations.

English.—Mental and Moral Science; Elocution; Debates.

History.—History of Government; Political Economy.

Latin.—Fourth year.
German.—Second year. } Optional Studies; both may be taken under certain conditions.

Mathematics.—Practice in Surveying, Road-work and Elements of Civil Engineering, Principles of Construction, &c.

Drawing.—Map-work; Projections and Perspective.

Lectures.—On Comparative Anatomy, Veterinary Science and Practice, and other topics.

Military Drill, as required by law, throughout the course.

Exercises in Composition and Elocution, as directed.

ADMISSION.

CANDIDATES for admission to the Freshman class are examined orally and in writing upon the common English branches, namely, reading, spelling, elements of English grammar, geography, common-school arithmetic, and history of the United States. These examinations must be satisfactorily passed in order to entitle one to full standing in the Freshman class, and give assurance of subsequent progress.

The public educational facilities are believed to be such, in all parts of the State, as to render it unnecessary for the College to maintain a preparatory department, but if students present themselves, who, for lack of proper opportunities, are imperfectly prepared, yet show willingness and ability to do extra work, they will be admitted, conditionally, upon passing a reasonable part of the entrance examinations, and an instructor will be assigned to assist them in meeting the conditions and acquiring a full standing in their class.

Applicants for admission to the higher classes must pass the entrance examinations and also be successfully examined on all of the studies completed by the classes they wish to enter, or on branches equivalent thereto.

No one is advised to apply until fifteen years of age, although physical and intellectual development are regarded as more important and will be considered rather than age. Every applicant must furnish a certificate of good character satisfactory to the Faculty; this should be obtained from his pastor, or last teacher, and presented on arrival at the college.

Candidates are advised to provide themselves, in all cases, with certificates of their standing in the school last attended and present these certificates to the examiners. Previous good scholarship will be considered and given due weight at entrance examinations, and a certificate of proficiency in any subject will be accepted instead of an examination, if granted by a college authorized to confer degrees, or by a high school in Maryland or Washington, D. C.

As stated in the Calendar, the regular examinations for admission are held at the College on the day following the annual Graduation Day, in June, and in September on the day next preceding that for the opening of the Fall Term of the Institution, beginning at nine o'clock A. M. on these days; but candidates may be examined and admitted at any other time in the year.

DEGREES.

THOSE who complete the prescribed course of study and maintain the required standard of scholarship will receive the degree of Bachelor of Science, the diploma being signed by the Governor of Maryland, who is *ex-officio*, president of the corporation. In case the student, by taking the optional studies and substitutes of the Junior and Senior years, makes his course more literary in character, the Degree of Bachelor of Arts may be conferred.

TUITION AND EXPENSES.

TUITION is free to all students, whether residents of the State of Maryland or not. To cover the necessary expenses of the year at College, clothing excepted, a single charge is made of one hundred and eighty dollars ($180). This includes board, room partly furnished, heat, lights, washing and the necessary text-books.

Students whose homes are in the neighborhood will be allowed to attend the college exercises daily upon payment of twenty-four dollars ($24) per annum. They will be assigned rooms to be occupied during study hours, be supplied all necessary books, and will be on a par with other students in connection with all college duties and exercises.

The text-books furnished will become the property of the student if he completes the college year in which they are used, but not otherwise.

No fees or other extras will be charged by the college except for special expenses actually incurred on behalf of the student, such as medical attendance, for stationery or for other articles supplied, and for loss or damage of college property, for which the student is personally responsible.

PAYMENTS.

ALL CHARGES and fees are due and must be paid, in advance. For convenience of patrons the payments are arranged as follows:

On the day of entrance fifty dollars ($50) of the annual charge; fifty dollars ($50) of the annual charge on the 15th day of November; on the 1st day of February forty dollars ($40), and the 1st day of April forty dollars ($40).

The low rates at which the students are received can only be maintained by purchasing all supplies at wholesale, for cash. This is only possible when *all* payments are made as stated. The Registrar is specially charged with the duty of making prompt collections, and annoyance to all parties will be avoided by a careful observance of all obligations in accordance with the terms above stated.

The general charge for the year is made against the student when he arrives, and no allowance or rebate will be made for any absence, unless specially agreed to, in advance.

FURNITURE, BEDDING, &c.

EACH BED-ROOM is furnished with two single beds and mattresses, two clothes-presses, a table and a washstand. The student must furnish chairs, looking-glass, chamber-ware, pillow and all other articles of bedding; also a study-lamp, a broom, shoe-brush, towels, table-napkins, clothes-bag and proper toilet articles. Clothing, towels, bedding, etc., should be marked with the owner's name. Such of the articles named, as cannot be conveniently brought from home, can be obtained at the College at cost prices.

UNIFORMS, &c.

THE UNIFORM worn by the students during all military exercises is of gray cloth of an established grade, cut according to the pattern adopted at the United States Military Academy. This consists of a dress coat, pair of pants, cap and gloves, costing just about twenty dollars ($20). Those who desire can obtain a fatigue suit, in addition, for about ten dollars ($10), but this is not re-

quired. To insure uniformity in quality and pattern and maintain low rates, the military suits must be purchased from the contractor with the college and paid for in cash, on delivery. Every student must provide himself with the regulation garments before the close of the College term in which he enters, and must thereafter keep uniformed to the satisfaction of the Commandant.

DISCIPLINE AND REGULATIONS.

It is expected that all students attending this College will have reached an age when their habits are so fixed and their characters so matured as to cause them to appreciate the value of their time and the opportunities afforded them at this institution. Without multiplying rules and regulations, they will, from the day of entrance, be placed upon their honor to contribute to the general good order and studiousness of the College, to promptly and cheerfully obey all instructions they may receive from its officers, pay proper regard to the care of its property, refrain from all acts calculated to disturb the comfort and work of their fellow-students, and in personal habits, conversation and conduct, at all times and places, to act as gentlemen.

In general, exemplary deportment, attention to duties, and the maintenance of good scholastic standing, will be required of all.

Should there be those who cannot be allowed full privileges because of immaturity and thoughtlessness, rather than deliberate misconduct or intentional neglect, they will be assigned quarters in a special part of the building and placed more or less completely under military discipline, as circumstances may require.

Such regulations as may be necessary will be promulgated from time to time, so as to be fully understood, and they must be observed and complied with by all.

Discipline will be administered, as a rule, in a progressive manner, by admonition, formal warning, notice to parents or guardians, and strict probation, but at any time when such action is in the interest of the individual or the College, any student may be sent home without previous notice, or may, for cause, be suspended, dismissed or summarily expelled.

MILITARY DUTIES.

MEMBERS of the Senior and Junior classes, and all students who have attended the College for one year or more, will be required to perform such duties as may be assigned them as officers, non-commissioned or guards, in connection with the military exercises or the police and discipline of the College.

RELIGIOUS SERVICES.

ALL STUDENTS are required to attend the daily morning prayers and public worship on Sunday in the College Chapel. Arrangements will be made for the Sunday services to be conducted by clergymen of different denominations. Upon request of parents, students will be permitted to attend religious services elsewhere in the neighborhood, at hours not conflicting with exercises at the College.

THE MERCER LITERARY SOCIETY

HOLDS weekly meetings, affording its members excellent opportunities for practice in oratory and debate. The advantages of this sort of training are not to be overlooked in estimating College life. Occasional public meetings are held. The Society library, which is open to members, is especially rich in history, biography, and the works of great statesmen.

LIBRARIES.

THE Library of the College, which is mainly for reference in the Departments of Agriculture and General Science, contains several hundred valuable books. The Library of the Literary Society has probably fifteen hundred volumes, and the private libraries of the professors as many more. All of these are accessible to students under proper conditions. The great libraries of the National Capital are within almost as easy reach as if the College were located in Washington.

MUSEUM.

In the Museum is an excellent study collection of minerals and ores, well classified, and of important service as a guide in the science of mineralogy.

For use in the study of crystallography there are models illustrating all the systems of crystallization, with the most important modifications of typical forms.

A small but by no means unimportant collection is one presented to the College by the United States Department of Agriculture, containing specimens, labeled and indexed, of more than four hundred varieties of woods grown in the United States.

Worthy of notice is the large number of models of agricultural machinery furnished through the courtesy of the United States Patent Office. Other aids to the study of science included in the Museum are an herbarium, illustrating the flora of Maryland and the District of Columbia; also a good collection of standard agricultural seeds and of animal and vegetable fibres.

READING-ROOM ASSOCIATION.

The students, assisted by the Faculty, support a reading-room, which is amply supplied with newspapers, magazines, and reviews. At present forty-seven daily, weekly and monthly publications are regularly placed on file, including leading papers of Baltimore, Washington, New York, Louisville, Atlanta and other cities; Harper's Monthly and Weekly, The Century, The Forum, North American Review, Scientific American and Supplement, Popular Science Monthly, Frank Leslie's, Golden Days, Youth's Companion, etc.

For the following magazines and papers the Association is indebted to the politeness of the publishers: Breeders' Journal, American Cultivator, Industrialist, American Farmer, Maryland

Farmer, Massachusetts Plowman, Farm and Home, Anne Arundel Advertiser, Centerville Record, Cambridge Chronicle, Carroll News, Democrat and News, Denton Journal, Federalsburg Courier, Free Quill, Harford Democrat, Marlboro Gazette, Peninsula Farmer, Prince George's Enquirer, Republican Citizen, Travelers' Record, Appleton's Bulletin, Patent Office Gazette.

PRIZES.

A PRIZE of ten dollars ($10) in money or books is offered by the President of the Faculty, to be awarded to that member of the Senior class who sustains throughout the year, including examinations, the best record in the department of agricultural studies.

Other prizes are being arranged and will be duly announced.

PRIZE AWARDED.

The Agricultural Prize for 1890

WAS AWARDED TO

ROBERT LEE RUSSELL,

OF WASHINGTON, D. C.

HONORABLE MENTION

FOR SPECIAL PROFICIENCY AND MERIT IN MILITARY DUTIES AND EXERCISES.

CLARENCE ELDER SOLES,

OF McKEESPORT, PENN.,

Has been reported to the War Department for honorable mention, and his name will so appear in the next U. S. Army Register.